

CLAIMS:

1. A method for analyzing a network, comprising:
 - processing a data trace captured from the network to determine a network topology;
 - processing the data trace to determine errors in network conversation;
 - processing the data trace to determine at least one metric for the network conversation;
 - displaying an interface screen to the user, the interface screen comprising a graphical topology representation, a determined error representation, and a representation of at least one determined metric.
2. The method of claim 1, wherein displaying further comprises providing a link in the interface screen wherein a user may select devices in the determined network topology and link to a second display to view errors corresponding to the selected devices.
3. The method of claim 1, wherein displaying further comprises:
 - allowing a user to select an analysis duration within the data trace in the interface screen;
 - processing the trace data for the selected analysis duration to determine a state of each device in the network topology for a predetermined number of intervals in the analysis duration; and
 - displaying at least one error and at least one metric for the analysis duration.
4. The method of claim 1, wherein displaying the determined error representation further comprises linking to a detailed error description in a second display when the user selects a particular error.

5. The method of claim 1, wherein displaying the determined error representation further comprises highlighting a portion of a metric graph that corresponds to a particular error when a user selects the particular error.
6. A method for analyzing a network and displaying analysis results to a user in an interactive display, comprising:
 - capturing a data trace from the network with at least one analyzer;
 - processing the data trace to determine a topology of the network;
 - processing the data trace to determine the presence of errors in communications between devices in the network topology; and
 - displaying a graphical user interface to the user, the graphical user interface comprising topology information, determined error information, and metric information.
7. The method of claim 6, wherein displaying topology further comprises displaying a graphical representation of each detected device of the network topology.
8. The method of claim 7, further comprising linking the user to a second display screen containing errors determined in association with a particular device in the topology when the user selects the particular device in the first display.
9. The method of claim 8, further comprising linking the user to a third screen having a description of a particular error when the user selects the particular error on the second display screen.
10. The method of claim 9, wherein displaying metrics comprises highlighting a portion of the displayed metric corresponding to the particular error.
11. The method of claim 10, further comprising allowing the user to define a viewing duration and redisplaying the metrics using the user defined duration.

12. The method of claim 11, wherein redisplaying the metrics further comprises recalculating a state of each device in the network for a plurality of intervals within the user selected duration and displaying the metrics for each of the intervals.

13. The method of claim 6, wherein the processing steps further comprise filtering the trace data to eliminate invalid data prior to generating the topology or error lists.

14. A method for analyzing a network and presenting the network analysis to the user, comprising:

- determining a network topology;

- determining communication errors between devices in the network topology;

- determining at least one communication metric;

- displaying the determined network topology to the user; and

- providing links between each device in the determined topology and determined errors corresponding to each device, each link operating to display a screen illustrating a description of the error for the device and the location of the error in the communication metric.

15. The method of claim 14, wherein determining network topology comprises analyzing a network data trace for device indicators.

16. The method of claim 14, further comprising displaying the at least one communication metric in a graph.

17. The method of claim 14, further comprising providing a selection window for the user to select an analysis duration, recalculating the errors and metrics for a plurality of intervals in the analysis duration, and displaying the errors and metrics for the analysis duration to the user.

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18. The method of claim 14, wherein determining a network topology and determining communication errors further comprises filtering trace data for invalid communications.

19. The method of claim 18, further comprising determining the topology, network errors, and the metrics based on the filtered trace data.

20. The method of claim 14, further comprising providing a selection window where the user can select metrics for inclusion in a graphical representation of the metrics.